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Cultural Influences Across Time and Space: Do Source-country Gender Roles Affect Immigrant Women's Paid and Unpaid Labour Activity?

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^{p}	preliminary
^{r}	revised
x	suppressed to meet the confidentiality requirements of the *Statistics Act*
^{E}	use with caution
F	too unreliable to be published
*	significantly different from reference category ($p < 0.05$)

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Abstract

This study examines whether source-country gender roles affect the paid and unpaid (i.e., housework) labour of immigrant women in Canada. The results show that the female–male labour activity ratio and female–male secondary education ratio in source countries—two indicators of source-country gender roles—are both positively associated with immigrant women's labour supply and negatively associated with the amount of housework that they perform. Furthermore, the effect of source-country female–male labour activity on immigrant women's labour supply remains stable over time, and the effect on housework declines slightly with years after landing in Canada. The effect of source-country female–male labour activity is enhanced when immigrant couples are from the same source country, but remains significant even when immigrant wives and their husbands are from different source countries. The effect of source-country female–male secondary education is generally smaller than that of source-country female–male labour activity.

Executive summary

Most previous studies on the determinants of immigrant socioeconomic outcomes have focused on individual human capital and other socio-demographic factors. An emerging international literature suggests that, beyond the impact of individual-level factors, the country of origin of immigrants, that is, the source country, also matters. Many attributes of source countries, such as economic development, education quality, and official language, can help to explain the large variations in the socioeconomic outcomes of immigrant groups. This study examines whether source-country gender roles influence the labour supply and the division of housework of immigrant families in Canada.

Canadian immigrants come from a range of source countries, which vary considerably in gender roles. Examining gender roles is therefore valuable in determining whether cultural norms continue to influence labour activities after immigrants have been exposed to the new environment of their host country. This study focuses on the "portability" of gender roles for immigrant women; that is, it examines whether source-country gender roles continue to influence immigrant families' labour and housework activities after arrival in Canada. This paper answers four questions: (1) Are indicators of traditional gender roles in the source countries of immigrant wives correlated with their labour force participation and contributions to housework in the years after landing in Canada?; (2) Does the strength of these relationships diminish with time in Canada? That is, how durable are the effects of source-country gender roles?; (3) Are the relationships between traditional gender roles and labour outcomes different when husbands and wives are from different source countries?; and (4) Are source-country gender roles also correlated with the labour activities and housework contributions of immigrant husbands?

The analysis examines immigrants aged 20 to 65 who are married or living as common-law spouses. The data set consists of immigrant source-country-level attributes attached to individual immigrants in micro-data files. The Canadian 1981, 1986, 1991, 1996, 2001, and 2006 Census 20% sample micro-data files provide individual-level variables on labour market activities, housework, and other socio-demographic characteristics. The data for immigrant source-country attributes are compiled from various sources and contain socio-economic indicators for the years 1970 to 2005. The main source-country characteristics examined are the female–male labour activity ratio and the female–male ratio in secondary school enrolment rate.

The results of the analysis show that source-country female–male labour activity and female–male education are both positively associated with immigrant wives' labour supply and negatively associated with immigrant wives' housework. That is, women from source countries with more "traditional" gender roles (i.e., the male breadwinner/female caregiver model) are less likely to participate in the labour force and also perform a larger amount of housework than women from countries with less traditional gender roles. Immigrant women who arrive from source countries with higher ratios of female–male secondary education also experience greater equity with their husbands with respect to their share in paid work and housework.

The effect of source-country female–male labour activity on immigrant women's shares in family paid and unpaid labour decreases with length of stay in Canada, although the magnitude of the decline is small, particularly in the effect on housework. This decrease is attributed primarily to the fact that the effect on immigrant husbands' labour supply fades over time but that the effect on immigrant wives' own labour supply remains stable. The female–male labour activity effect on husbands' housework is small and diminishes by 15 years after arrival; however, the effect on wives' housework remains large after 30 years in Canada. Therefore, source-country gender roles continue to play a role in immigrant women's household labour, even several years after they have moved to a new social and institutional environment.

The immigrant status of women's husbands also influences the extent to which source-country gender roles affect immigrant wives' labour activities. The effect of source-country female–male labour activity on immigrant wives' paid and unpaid labour is reduced, but does not disappear, when immigrant women have immigrant husbands who are from a different source country. The effect of source-country female–male labour activity is larger when immigrant wives and their husbands share the same immigration background, but the effect remains significant even when immigrant wives and their husbands have different immigration backgrounds.

The findings of this paper indicate that the paid and unpaid labour activities of immigrant women are not independent of their countries of origin, as their labour decisions in Canada continue to be influenced by the gender roles of their source countries.

1 Introduction

The significant increase in women's paid employment throughout the 20th century and its implications for women's working and personal lives have attracted much attention from social researchers. Studies examining the determinants of women's paid and unpaid (i.e., housework) labour activities typically centre on individual- or couple-level factors, investigating how household decisions are influenced by socio-economic circumstances and negotiated between spouses or partners (e.g.: Becker 1981; Chiappori 1992; Laporte and Schellenberg 2011). However, other literature centres on the influence of gender itself (e.g.: Berk 1985; Calasanti and Bailey 1991; Greenstein 1996; Presser 1994), arguing that men and women are socialized to assume particular gender roles within the household (Coltrane 2000, p. 1213; Cunningham 2001).

In addition, an emerging literature links women's labour activities with national-level factors, thus providing a different perspective on how cultural norms may influence women's paid and unpaid work (e.g.: Fuwa 2004; Fuwa and Cohen 2007; Knudsen and Wærness 2008; Ruppanner 2010*a*, 2010*b*). Blumberg (1984) contends that households are "nested" within national-level systems. Many studies have built on this hypothesis, arguing that societal factors influence how couples organize household tasks, both in terms of how different types of tasks are divided between spouses and the absolute amount of time each spouse spends doing housework (e.g.: Craig and Mullan 2011; Geist 2005). National context is then assumed to play an important role, with prevailing notions of gender roles within a country influencing the labour activities of women and men (Hook 2010). Indeed, empirical studies have found a relationship between societal attitudes toward gender roles and women's decisions and attitudes about their place within the family and the labour market (e.g.: Antecol 2000; Fuwa 2004; Kan et al. 2011).

Cross-cultural research that considers national-level characteristics suggests that women's labour market and housework activities are associated with institutional and cultural forces within their societies (Geist 2005; Knudsen and Wærness 2008). Certain national-level factors, such as female labour force participation rates and female–male secondary education enrolment ratios, are taken as indicators of the extent to which "traditional" gender roles are embraced within a country and are used to assess how gender-related cultural norms may influence women's labour decisions. Empirical analyses along this line of inquiry have focused on the effects of national characteristics such as the level of economic development, the level of female empowerment,[1] or the characteristics of the welfare system.

An important limitation of cross-national comparisons is that they typically cannot ascertain whether the observed variation in women's share of labour is associated with differences in cultural factors or institutional contexts between nations. The limited numbers of countries included in these studies also prevent adequate controls for country-level attributes and sometimes yield cross-national comparisons characterized by modest variation in gender norms (e.g., Baxter 1997). One way to address these limitations is to isolate the effect of cultural traits by holding institutional contexts relatively constant. Such "natural experiments" require subjects who have different cultural backgrounds but are exposed to the same national institutions and policies. This can be achieved by examining immigrants from various source countries who arrive in the same host country as adults. The association between source-country characteristics and immigrants' labour market and household activities in the host country

1. Previous literature has measured "female empowerment" within a nation through the use of the Gender Empowerment Measure (GEM) index, which was developed by the United Nations Development Program. The GEM is intended to measure "levels of women's participation in politics, professional opportunities, and their economic power" (Knudsen and Wærness 2008, p. 102). This measurement is based on a number of factors, including the percentage of parliamentary seats held by women, the percentage of female professional and technical workers, and women's share of earned income compared to that of men (Fuwa 2004).

allows for an assessment of cultural factors independent of the institutions and conditions across nations (Antecol 2000; Blau et al. 2011; Fernández and Fogli 2009).

This study extends the literature on the relationship between source-country characteristics and immigrant women's labour by investigating the potential influence that cultural factors related to gender norms in immigrants' home countries may have on immigrants' paid and unpaid work in Canada. The following questions are addressed: (1) Are indicators of traditional gender roles in the source countries of immigrant wives correlated with their labour force participation and contributions to housework in the years after landing in Canada?; (2) Does the strength of these relationships diminish with time in Canada? That is, how durable are the effects of source-country gender roles?; (3) Are the relationships between traditional gender roles and labour outcomes different when husbands and wives are from different source countries?; and (4) Are source-country gender roles also correlated with the labour activities and housework contributions of immigrant husbands?

The remainder of the paper is organized into six sections. Section 2 provides an overview of the research literature on differences in women's labour activities across nations and on the persistence of source-country gender roles within immigrant families. This is followed, in Section 3, by a discussion of the data, measures, and methods used in the study. Descriptive and multivariate results are then presented in sections 4 and 5, respectively. Finally, Section 6 provides a summary of the main conclusions of the study.

For simplicity, in this paper, the term *married* refers to individuals who are legally married or living as common-law spouses, the term *wife/wives* refers to both wives and common-law female partners, and the term *husband/husbands* refers to both husbands and common-law male partners.

2 Women's paid and unpaid labour: Cross-national comparisons and post-migration studies

Cross-national studies have largely concluded that women's labour force participation and share of household labour vary across nations, indicating that there are national-level influences on women's paid and unpaid work (Batalova and Cohen 2002; Bittman et al. 2003; Fortin 2005; Fuwa 2004; Fuwa and Cohen 2007; Heisig 2011; Hook 2006; Kan et al. 2011; Knudsen and Wærness 2008; Nieuwenhuis et al. 2012; Yodanis 2005). These studies examined the roles that different national economic and social characteristics play in women's labour decisions. As well, several studies have discussed the relationship between women's household labour and policies pertaining to employment and child care (e.g.: Craig and Mullan 2011; Fuwa and Cohen 2007; Geist and Cohen 2011; Gershuny and Sullivan 2003; Kan et al. 2011; Lewis 1992). For example, women in countries with policies that actively promote women's labour force participation are found to assume a smaller share of housework than women in countries with policies based on assumptions of "traditional" (i.e., male breadwinner/female caregiver) family responsibilities (Fuwa 2004; Kan et al. 2011).

Furthermore, greater representation of women in positions of political or economic power within a society are associated with greater equity in the division of household labour (Batalova and Cohen 2002; Fuwa 2004; Knudsen and Wærness 2008). With respect to other factors, women's housework is highly negatively correlated with the level of female empowerment in their country (as indicated by its Gender Empowerment Measure score), while men's absolute contributions to housework are more strongly correlated with their country's level of economic development (Knudsen and Wærness 2008). However, the effects of economic development, as measured by gross domestic product (GDP), are not consistent across studies. While Fuwa (2004) found that GDP is not significantly correlated with women's share of housework, Heisig (2011)

concluded that women's and men's relative shares of housework across countries are associated with GDP per capita.[2] Knudsen and Wærness (2008) suggested that these inconsistencies may be due to a high correlation between national GDP and levels of female empowerment.

A number of U.S. studies have examined the potential influence that gender roles in immigrants' source countries have on post-migration employment decisions. These studies indicate that national-level factors associated with gender roles in source countries, such as female labour force participation rates, subsequently influence first- and second-generation immigrant women's labour market decisions (Antecol 2000; Blau et al. 2011; Fernández and Fogli 2009).

The potential influence that gender roles in immigrants' source countries have on their post-migration labour raises questions about whether individual attitudes and behaviours change over time. Some research suggests that individuals' beliefs regarding gender roles are formed largely in childhood and continue to shape behaviours in adulthood (Cunningham 2001; Marshall 2011; Fernández et al. 2004). The influence of attitudes and beliefs formed early in life may thus persist even when individuals move to a new country (Dion and Dion 2001). Conversely, immigrants from source countries with traditional gender roles may alter their employment and housework activities when the policies and cultural norms of the host country support greater equity between women and men. Research also suggests that immigrants' labour choices may be less influenced by attitudinal changes toward gender roles than by pressures caused by the decline in their standard of living after arriving in the host country (Min 2001).

The extent to which immigrant women adopt the cultural and economic norms of the host country with increased length of exposure is unclear, perhaps testifying to the competing tensions some individuals experience in this regard. Dasgupta (1998, p. 955) reported that the continuation of traditional gender roles among immigrants is "integrally linked" to the maintenance of ethnic group identity upon arrival in a new country, and several studies have reported that some immigrant women experience a conflict between maintaining the cultural traditions of their countries of origin and benefiting from the opportunities offered in their host country (Agarwal 1991, p. 52; Dasgupta 1998; Kibria 1987). Studies examining subjective well-being suggest that the influence of some cultural traits does not dissipate easily after immigrants settle in a new society (Rice and Steele 2004; Veenhoven 1994). Alternatively, others have argued that immigrants' experiences in their host country impact their behaviour over time, with "present" values diminishing the effects of "past" values (e.g., Yu 2011). Adsera and Ferrer (2011), for example, hypothesized that the fertility decisions of immigrant women from countries with higher fertility rates are influenced by the economic realities encountered in the host country, such as better employment opportunities or a higher cost of living, or by interaction with native-born individuals.

Research from the United States indicates that some degree of assimilation occurs in immigrant women's labour market behaviour with time spent in the host country. While immigrant women generally work less upon arrival than native-born women, the hours they work "assimilate dramatically" with those of native-born American women over time (Blau et al. 2011, p. 52). This is true for women from countries with both high and low levels of female labour force participation. However, a gender gap persists across source-country groups, as women from countries with a high female labour force participation rate show smaller gaps in labour force participation rates vis-à-vis native-born women than do women from nations with lower rates (Antecol 2000). Therefore, although some assimilation occurs after migration, it appears that "a permanent, portable" cultural factor continues to influence immigrant women's labour market behaviour in the host country (Antecol 2000, p. 419; Fernández and Fogli 2005).

2. Both Fuwa (2004) and Heisig (2011) used a Purchasing Power Parity (PPP) adjusted GDP-per-capita indicator to measure economic development.

Contrary to findings from the United States, immigrant wives in Canada work more hours upon arrival than their native-born counterparts (Baker and Benjamin 1997). This has been attributed to a "family investment strategy" whereby wives obtain employment soon after landing to help finance the family while their husbands invest in human-capital-enhancing activities intended to improve their labour market success over the longer term (Baker and Benjamin 1997, p. 705; Duleep and Sanders 1993). Consequently, immigrant wives' labour supply decreases over time while that of their husbands increases. Baker and Benjamin (1997) did not specifically examine the effects of source-country cultural factors on these patterns. Blau et al. (2003, p. 446) suggested that the different outcomes among immigrant women in Canada and the United States may be due to differences in the composition of immigrants in the two countries or differences in the "economic and legal circumstances" they encounter.

The effect of source-country gender roles on a woman's labour market and household labour activities could also be affected by her husband's country of origin (Blau et al. 2011; Fuwa 2004). Baker and Benjamin (1997) found that immigrant women with native-born spouses work less upon arrival in Canada than immigrant women with foreign-born spouses. In the United States, immigrant women's labour force participation is correlated with the female labour force participation rate in their husbands' country of origin (Blau et al. 2011). Findings regarding the relationship between the gender norms in husbands' source countries and women's labour activities could represent the impact of husbands' attitudes toward their wives' activities or be an indication that women and men select spouses who hold similar beliefs as themselves. However, in either case, gender-related cultural factors appear to play a significant role.

This paper contributes to the literature on the relationship between gender roles and post-migration paid and unpaid labour activities by including a broader range of outcome variables than has been used in previous studies, and by extending the primarily U.S.-based research to the Canadian context. Immigration selection systems in Canada and the United States are different, as are the compositional characteristics and labour market outcomes of immigrants. An examination of the "portability" and effects of cultural factors with a specific focus on Canada is thus warranted.

3 Data, measures, and methods

3.1 Data

This study uses a data set consisting of immigrant source-country-level attributes linked to individual immigrants in micro-data files. The Canadian 1981, 1986, 1991, 1996, 2001, and 2006 Census 20% sample micro-data files are used to provide individual-level information on labour market activities, housework, and other socio-demographic characteristics. The data for immigrant source-country attributes are compiled from various sources (see section 3.2, "Measures") and consist of national socio-economic indicators for the years 1970 to 2004.

The analysis focuses on immigrants aged 20 to 65 who are married or living as common-law spouses. Their spouses can be either Canadian-born or immigrants, also aged 20 to 65. Wives and husbands are matched using a unique census family identification number. With information on both wives and husbands, couples' total weeks of employment and total hours of housework can be calculated, and spousal characteristics can be incorporated into the multivariate models. Immigrants who arrived in the census year or the year prior to the Census were excluded because they had not been in Canada long enough to have worked for 52 weeks (weeks of employment being one of the main outcome variables used in this paper).

The analysis of immigrant wives is restricted to those who have arrived since 1970.[3] Data on source-country attributes are sparse for prior years. While several restrictions are made to immigrant wives, there is no restriction on their husbands' immigrant status which allows us to test whether the effects of source-country attributes on immigrant wives vary with their husbands' immigration status. Similarly, in the analysis for immigrant husbands, only men who have immigrated to Canada since 1970 are included, and there is no restriction on their wives' immigrant status.

The sample of immigrant wives selected from the micro-data file for each census year is merged with the database on source-country attributes using detailed country of birth and year of landing as the link keys. Put differently, immigrants in the census files are assigned a set of their source-country attributes measured in the year they came to Canada. The data files from the six censuses are then pooled together for model estimation. With pooled data, a given cohort of immigrants can be followed over time allowing differences between cohorts and changes within cohorts (the assimilation effect) to be estimated simultaneously.[4]

3.2 Measures

The outcome variables are labour market activities and unpaid household work. While some studies use only ratio measures to examine husbands' and wives' contributions to household labour, this paper uses both absolute and relative measures of paid and unpaid labour.[5]

The indicators of labour market activities are the likelihood of immigrant wives participating in the labour force (that is, the wife worked at least one week in the year prior to the Census), the number of weeks worked by immigrant wives, and immigrant wives' share of couples' total weeks worked during the year. "Weeks worked" refers to the number of weeks worked for pay in the year prior to the Census (e.g., 2005 for the 2006 Census). Weeks worked are coded from 0 to 52 for each spouse.

The indicators for unpaid housework are the total hours of housework done by wives and husbands during the week prior to the Census and wives' share of the total hours of unpaid housework done by couples during the reference week. Housework data are available only for 1996, 2001, and 2006. The total hours of unpaid housework for each spouse are the hours that the person spent doing housework, maintaining the house, or doing yard work without getting paid for doing so.[6]

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3. The women examined in this study are those who immigrated to Canada between the ages of 18 and 55, allowing them at least 10 years to participate in the Canadian labour market before reaching age 65. This age range also applies to the analysis on immigrant husbands.
4. One potential limitation of pooling multi-year data to follow a synthetic cohort is that the characteristics of a given cohort may change over time as a result of emigration or death. A recent Canadian study found that immigrant earnings growth based on the synthetic approach with multi-year census data was biased marginally upwards compared with earnings growth based on longitudinal administrative data (Picot and Piraino 2012).
5. Some researchers have argued that this approach allows for a "more complete understanding" of the division of work within families (Lachance-Grzela and Bouchard 2010, p. 770; Bianchi et al. 2000; Ruppanner 2010*b*). Utilizing both types of measures also prevents some methodological drawbacks. When only a relative measure of labour activities between husbands and wives is used, the actual meaning of changes in the variable may be masked. For example, increases in a husband's share in housework may be due to an actual increase in the husband's labour or an actual decrease in the wife's labour (Bianchi et al. 2000).
6. The census question is "Last week, how many hours did this person spend doing the following activities: doing unpaid housework, yard work or home maintenance for members of this household or others?" The number of hours spent on housework is recorded in six intervals: no hours; < 5 hours; 5 to 14 hours; 15 to 29 hours; 30 to 59 hours; and 60 hours or more. Hours spent on housework are computed by assigning the mid-point for each bounded category and 65 hours for the unbounded upper category. A similar approach has been used in a previous study (Frenette 2011).

The explanatory variables of primary interest are two indicators that reflect the degree of traditional gender roles in immigrants' source countries. The first is the ratio of female–male labour force participation rates in the source country (hereafter referred to as "female–male labour activity") calculated for individuals aged 15 and over.[7] The ratio reflects the relative difference in paid work of women and men and thus captures the gender division of labour (Blau et al. 2011). This relative indicator mitigates problems associated with cross-country differences in the definition and measurement of labour force participation since within-country ratios affect both women and men (Antecol 2000; Blau et al. 2011). The second indicator is the ratio of female–male secondary school enrolment rates (hereafter referred to as "female–male education").[8] This ratio reflects the gender difference in access to secondary school education.[9]

Three source-country characteristics are also included as control variables: the total fertility rate, which represents the number of children that would be born to a woman by the end of her childbearing years in accordance with current age-specific fertility rates; GDP per capita in 2005 U.S. dollars;[10] and whether either English or French is an official language.[11] These variables are likely correlated with the two indicators of gender roles and with the preparedness for work in the host-country labour market.

At the individual level, the explanatory variables in the models for immigrant wives are the following: age and age squared; common-law status (1=common law, 0=legally married); visible minority status (1=visible minority, 0=white); husband's immigration status; years since landing; period of immigration (cohort); levels of education; husband's level of education; language spoken; and geographic region of residence. Husband's immigration status is coded as two dummy variables: husband is Canadian-born (non-immigrant), and husband is an immigrant from a source country different from the wife's, with the common reference group being husbands from the same country. Immigration cohorts are coded as six dummy variables: 1970–1974, 1975–1979, 1980–1984, 1985–1989, 1990–1994, and 1995–1999, with the 2000–2004 cohort as the reference group. The wife's and husband's levels of education are both coded as four dummy variables: graduate degree; some postsecondary education; high school graduation; and less than high school; with "bachelor degree" as the reference group. Language spoken is coded as four dummy variables: mother tongue is not English or French and not speaking English or French; mother tongue is not English or French but speaking French; mother tongue is not English or French but speaking English; and mother tongue is French. "English mother tongue" is the common reference. Three variables are included to capture the presence of children: the number of children aged 0 to 5; the number of children aged 6 to 14; and the number of children aged 15 to 17. Finally, the geographic region distinguishes the three largest metropolitan areas (Toronto, Montreal, and Vancouver), the ten provinces (excluding the three metropolitan areas), and the combined three territories. It would be ideal to have

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7. These data were downloaded from World Bank online database, http://data.worldbank.org/indicator/, in December 2011.
8. These data were downloaded from the World Bank online database, http://data.worldbank.org/indicator/, in December 2011.
9. A measure of female–male ratio in tertiary school enrolment is also available but not included in the analysis because it is strongly correlated with the ratio for secondary education. When both are included in the same model predicting immigrant wives' share of labour in the host country, the effect of the ratio in tertiary school enrolment is often not significant.
10. GDP-per-capita data from 1970 to 2006 were extracted from United Nations Statistics Division National Accounts Main Aggregates Database, http://unstats.un.org/unsd/snaama/Introduction.asp, in December 2011. An alternative measure of a country's level of economic development is the purchasing power parity (PPP) GDP per capita, which provides a better indicator of the living standard for developing countries. In comparison, GDP per capita is a better measure of a country's relative economic strength. While GDP per capita data are readily available for all countries from 1970 to 2005—the period used in the current study—PPP GDP-per-capita data are not readily available for most countries prior to 1980. For some countries, this indicator is available only from the 1990s. In addition, PPP GDP per capita tends to have a smaller cross-country variation than GDP per capita.
11. This variable is compiled from the World Almanac and Book of Facts (2000) and Wikipedia (http://en.wikipedia.org/wiki/List_of_official_languages_by_state).

immigrants' history of paid labour market attachment in their home countries before they immigrated, but such information is not available in the Census.

3.3 Methods

For each outcome variable, three models in sequence are estimated. Model 1 includes only the five selected source-country attributes.

$$Y_{ij} = \alpha Z_j^g + \beta Z_j^c + \varepsilon_{ij} \quad (1)$$

For immigrant wife i from source country j, Y_{ij} is the chosen outcome variable. Z_j^g represents the two indicators of source-country gender roles (i.e., female–male labour activity and female–male education), and Z_j^c represents the three source-country control variables. This model will show the overall effect of source-country gender roles after controlling for socio-economic development and official languages.

Model 2 adds in individual-level variables, X_i, as discussed in the previous section.

$$Y_{ij} = \alpha` Z_j^g + \beta` Z_j^c + \gamma X_i + \varepsilon_{ij} \quad (2)$$

The change in the coefficients of gender roles from α in Model 1 to $\alpha`$ in Model 2 will show the extent to which the effect of gender roles in the source country works through individual characteristics.

Model 3 adds in the interaction terms between source-country gender roles and the husband's immigration status (HIM), and between source-country gender roles and years since landing (YSL).

$$Y_{ij} = \alpha` Z_j^g + \beta` Z_j^c + \gamma X_i + \alpha^h Z_j^g * HIM_{ij} + \alpha^y Z_j^g * YSL_{ij} + \varepsilon_{ij} \quad (3)$$

From Model 3, the extent to which the effect of source-country gender roles is reduced when the husband is not from the same source country as the immigrant wife, and whether the effect of source-country gender roles decreases with the length of stay in the host country, can be estimated.

Since source-country attributes of each immigrant are measured at the group level, a cluster effect is allowed in estimating standard errors in order to correct the correlated error terms within a group (Blau et al. 2011; Wooldridge 2003). Such a model is equivalent to a fixed-intercept model with level-1 covariates and level-2 predictors within the framework of hierarchical linear models (Raudenbush et al. 2000). Essentially, this approach first estimates the mean outcome for each cluster, adjusted for differences in individual-level characteristics across clusters, and then regresses the mean outcome on cluster-level predictors. The cluster in this study is based on the combination of source country/region (about 79 combinations depending on the census year) and year of landing (a total of 35 years). The cluster variable potentially has 2855 groups (35 years of landing x 79 countries). There are actually 2753 groups in our data since there is no observation in some year–country combinations.

4 Descriptive results

4.1 Cross-country differences in the indicators of gender roles

Immigrants to Canada, on average, came from source countries with lower ratios of female–male labour activity than Canada's, but source countries differed considerably in this respect (Table 1). West Asia/the Middle East, South Asia, and Central America had the lowest ratios in both 1981 and 2006, suggesting persistent cultural difference in the labour market participation of women relative to men across countries (Table 1).

Persistent differences in the female–male labour activity were particularly evident at the country level. The Pearson correlation was 0.99 between the values for 1981 and 1991, and 0.96 between the values for 1991 and 2006. Although the ratio increased in most countries over the study period, the relative difference across countries changed very little. The regional averages presented in Table 1 mask considerable variations among countries within regions.[12] Regional means are presented in Table 1 for the sake of parsimony, but country-level measures are used in the multivariate models.

Compared with the persistence in the cross-country differences in women's relative labour activity, the ratios of female–male education tended to converge. While the ratio of female–male education in Canada remained at parity between 1981 and 2006, source regions at the bottom of the ranking in 1981, such as South Asia, Africa, and West Asia/the Middle East, experienced considerable gains in subsequent years. As a result, the regional differences in female–male education were much smaller in 2006 than in 1981. At the country level, the Pearson correlation was 0.85 between the 1981 and 1991 values and was 0.65 between the 1991 and 2006 values. These results suggest that the difference in female–male education across source countries was not as persistent as the difference in female–male labour activity. That is, gender gaps in education closed more quickly than gender gaps in labour market participation. Furthermore, the correlations among the five source-country characteristics show that female–male education was more strongly correlated with both GDP per capita and total fertility rate than was female–male labour activity, particularly in 1981 (Table 2).

12. For instance, among countries in West Asia/the Middle East in 1981, the ratio was 0.25 in Iran, 0.22 in Lebanon, 0.14 in Iraq, and 0.13 in Saudi Arabia. This pattern of cross-country differences within the same region had changed slightly after 25 years. In 2006, the ratio was 0.42 in Iran, 0.31 in Lebanon, 0.19 in Iraq, and 0.25 in Saudi Arabia.

Table 1

Selected source-country characteristics of immigrants arrived in the previous 10 years, 1981 and 2006

	Female–male labour activity	Female–male secondary education	Total fertility rate	Gross domestic product per capita	Official language is English or French
	ratio		number of children	2005 U.S. dollars	percent
1981					
Canada	0.64	1.01	1.9	20,330	100
All recent immigrants	0.46	0.86	3.6	8,690	59
United States	0.56	1.00	2.0	22,260	100
Central America	0.26	0.81	5.9	3,910	3
Caribbean	0.50	1.11	4.5	4,160	99
South America	0.34	1.02	4.4	2,200	44
Northern Europe	0.52	1.01	2.0	19,580	95
Western Europe	0.48	0.98	1.9	22,100	43
Southern Europe	0.36	0.87	2.5	10,020	2
Eastern Europe	0.76	0.99	2.3	4,110	0
Africa	0.60	0.50	6.5	1,170	74
South Asia	0.21	0.41	5.3	280	95
Southeast Asia	0.58	0.71	5.6	1,080	65
East Asia	0.54	0.89	2.8	5,240	37
West Asia/Middle East	0.22	0.60	5.6	3,290	0
Oceania and others	0.33	0.91	3.1	10,940	80
2006					
Canada	0.85	1.02	1.5	32,030	100
All recent immigrants	0.61	0.92	2.7	5,730	42
United States	0.80	1.01	2.0	37,680	100
Central America	0.49	1.03	3.0	5,300	1
Caribbean	0.69	1.07	2.8	4,400	88
South America	0.56	1.07	2.6	3,180	23
Northern Europe	0.76	1.02	1.7	34,050	94
Western Europe	0.75	0.99	1.6	33,670	62
Southern Europe	0.73	1.00	1.6	5,970	0
Eastern Europe	0.80	1.01	1.3	3,610	0
Africa	0.59	0.82	4.4	1,460	53
South Asia	0.38	0.77	3.3	620	80
Southeast Asia	0.66	0.96	3.5	1,370	78
East Asia	0.79	0.97	1.6	6,540	14
West Asia/Middle East	0.34	0.83	3.8	4,570	0
Oceania and others	0.64	1.02	2.4	18,110	100

Note: The results presented for Canada are the average of the values for the previous 10 years. For immigrants, they are the average of source-country indicators in the previous 10 years weighted by numbers of immigrants in the sample. The value of gross domestic product per capita was rounded to the nearest 10.
Sources: Statistics Canada, 1981 and 2006 Census of Population; World Bank; International Labour Organization.

Table 2
Correlation among selected source-country characteristics, 1981 and 2006

	Female–male labour activity	Female–male secondary education	Total fertility rate	Gross domestic product per capita
	ratio		number of children	2005 U.S. dollars
1981				
Female–male secondary education	0.27	...	...	...
Total fertility rate	-0.08	-0.60	...	...
Gross domestic product per capita	0.11	0.45	-0.74	...
Official language is English /French	0.09	0.01	0.14	0.15
2006				
Female–male secondary education	0.44	...	...	...
Total fertility rate	-0.48	-0.54	...	...
Gross domestic product per capita	0.21	0.26	-0.35	...
Official language is English /French	-0.28	-0.22	0.35	0.17

Note: All coefficients are significant at $p<0.001$.
Sources: Statistics Canada, 1981 and 2006 Census of Population; World Bank; International Labour Organization.

4.2 Married immigrant women's labour market activity and housework by source region

Are differences across source regions in female–male labour activity correlated with married immigrant women's labour market activity in Canada? In both 1981 and 2006, married recent-immigrant[13] women from West Asia/the Middle East and Central America ranked among the lowest in their own weeks worked and in weeks worked relative to their husbands (Table 3). These two source regions were also ranked among the lowest in female–male labour activity (as in Table 1). Married recent-immigrant women from South Asia, another source region with very low female–male labour activity, also ranked low in their own weeks worked and in weeks worked relative to their husbands in 2006. However, while these observations were consistent with expectations, others were not.

13. This paper defines recent immigrants as those who landed in Canada 10 years or less prior to the Census.

Table 3

Means of labour market activity indicators for married recent-immigrant women aged 20 to 65, 1981 and 2006

	1981			2006		
	Labour force activity rate	Weeks worked	Share in the couple's total weeks worked	Labour force activity rate	Weeks worked	Share in the couple's total weeks worked
	mean					
Married Canadian-born women	0.611	23.9	0.289	0.814	36.3	0.434
All married recent-immigrant women	0.699	28.0	0.329	0.691	28.1	0.364
United States	0.647	23.9	0.286	0.748	31.3	0.359
Central America	0.523	17.5	0.228	0.608	24.7	0.300
Caribbean	0.833	34.2	0.410	0.771	31.7	0.403
South America	0.752	29.9	0.357	0.717	29.6	0.365
Northern Europe	0.687	27.6	0.304	0.817	35.7	0.401
Western Europe	0.600	23.9	0.276	0.824	35.4	0.409
Southern Europe	0.653	26.4	0.320	0.778	34.0	0.412
Eastern Europe	0.702	28.4	0.329	0.787	32.9	0.396
Africa	0.719	29.8	0.345	0.650	25.2	0.354
South Asia	0.676	25.2	0.301	0.632	24.5	0.314
Southeast Asia	0.824	34.4	0.397	0.805	34.7	0.415
East Asia	0.722	30.0	0.353	0.674	26.8	0.385
West Asia/Middle East	0.490	18.2	0.238	0.500	19.6	0.296
Oceania and others	0.747	29.9	0.343	0.804	34.4	0.391

Source: Statistics Canada, 1981 and 2006 Census of Population.

Although the Caribbean, South America, Northern Europe, Southern Europe, South Asia, and East Asia all had lower female–male labour activity than Canada by 1981, recent-immigrant wives from these regions had a higher labour activity than Canadian-born married women in that year (Table 3). This inconsistency between the relative status of gender roles in the source region and immigrant women's labour activity in Canada may reflect the fact that immigrants to Canada are a select group and differ from the average population in their source country. It may also reflect a "family investment strategy" whereby immigrant women seek employment soon after arrival in order to help finance the family during this transitory period (Baker and Benjamin 1997).

From 1981 to 2006, Canadian-born wives increased their labour activity by 50%, both in terms of their own weeks of employment and their share of couples' total weeks of employment. However, among recent-immigrant wives, there was no increase in weeks worked, and there was only an 11% increase in their share of couples' total weeks worked. Recent-immigrant wives from the United States and Europe did work more weeks in 2006 than in 1981, but recent-immigrant wives from the Caribbean, South America, Africa, South Asia, and East Asia worked fewer weeks in 2006 than in 1981. The decrease in labour activity among recent-immigrant wives from these less-developed regions is consistent with the growing labour market difficulties experienced by recent immigrants from less-developed regions (Hou 2010; Picot and Sweetman 2012). The fact that recent-immigrant wives from these regions saw their own weeks of employment decline between 1981 and 2006 while their share in couples' total weeks of employment increased suggests that their husbands experienced even larger decreases in

weeks worked over the period. Overall, there were large differences in immigrant wives' labour activities across source regions (Table 3).

In terms of housework, women from the regions with the lowest female–male labour activity contributed the largest share of couples' total hours of housework (Table 4). Again, this was most evident among immigrant wives from West Asia/the Middle East and Central America.

Recent-immigrant women from different source regions varied considerably in human capital, and group differences were rather consistent over time (Table 5). In 1981, recent-immigrant wives from the United States, Eastern Europe, and South Asia had the highest rates of university education, ranging from 12% to 14%, while those from Southern Europe and the Caribbean had the lowest rates, at less than 2%. Married recent-immigrant women from different source regions differed considerably in their likelihood of having a Canadian-born husband (Table 5), of being a member of a visible-minority group, or of having French or English as their mother tongue. In this context, the effect of source-country gender roles on immigrant women's work activities may work through group differences in individual characteristics.

Table 4

Means of housework indicators for married recent-immigrant women aged 20 to 65, 1996 and 2006

	1996		2006	
	Total hours of housework	Share in the couple's total hours of housework	Total hours of housework	Share in the couple's total hours of housework
	mean			
Married Canadian-born women	26.6	0.669	23.0	0.622
All married recent-immigrant women	25.6	0.682	24.1	0.646
United States	29.0	0.680	25.3	0.646
Central America	28.5	0.706	28.3	0.686
Caribbean	25.5	0.669	23.2	0.628
South America	27.1	0.687	24.3	0.640
Northern Europe	27.9	0.684	25.5	0.640
Western Europe	27.7	0.697	21.9	0.635
Southern Europe	28.0	0.717	24.3	0.660
Eastern Europe	22.7	0.670	20.2	0.630
Africa	25.8	0.695	24.9	0.671
South Asia	27.6	0.691	27.4	0.663
Southeast Asia	22.5	0.641	22.3	0.595
East Asia	23.5	0.670	22.0	0.633
West Asia/Middle East	29.4	0.744	26.8	0.690
Oceania and others	27.7	0.679	24.7	0.642

Source: Statistics Canada, 1996 and 2006 Census of Population.

Table 5

Selected individual characteristics of married recent-immigrant women aged 20 to 65, 1981 and 2006

	Age	With a university degree	Common-law	Visible minority	English/French mother tongue	Husband is Canadian-born	Husband from a different country
	mean				proportion		
1981							
Married Canadian-born women	37.7	0.063	0.079	0.005	0.953	0.925	...
All married recent-immigrant women	34.9	0.053	0.026	0.472	0.451	0.112	0.157
United States	33.8	0.134	0.047	0.023	0.976	0.527	0.136
Central America	33.3	0.036	0.027	0.721	0.114	0.253	0.322
Caribbean	34.2	0.014	0.053	0.980	0.951	0.052	0.142
South America	34.0	0.034	0.037	0.895	0.423	0.055	0.171
Northern Europe	35.4	0.028	0.038	0.017	0.931	0.161	0.119
Western Europe	35.4	0.072	0.063	0.014	0.346	0.230	0.284
Southern Europe	35.5	0.010	0.009	0.007	0.048	0.014	0.045
Eastern Europe	37.5	0.139	0.029	0.013	0.049	0.076	0.189
Africa	35.5	0.051	0.013	0.714	0.526	0.038	0.333
South Asia	33.4	0.119	0.004	0.953	0.270	0.013	0.114
Southeast Asia	34.4	0.058	0.021	0.956	0.228	0.056	0.140
East Asia	35.7	0.034	0.007	0.979	0.087	0.030	0.260
West Asia/Middle East	34.8	0.040	0.007	0.823	0.139	0.046	0.247
Oceania and others	33.1	0.033	0.032	0.461	0.743	0.218	0.181
2006							
Married Canadian-born women	42.8	0.206	0.252	0.016	0.953	0.925	...
All married recent-immigrant women	38.6	0.178	0.046	0.738	0.155	0.101	0.105
United States	39.0	0.209	0.072	0.060	0.959	0.757	0.125
Central America	36.5	0.114	0.080	0.734	0.039	0.283	0.153
Caribbean	38.5	0.079	0.093	0.928	0.677	0.148	0.150
South America	38.3	0.156	0.092	0.770	0.236	0.168	0.135
Northern Europe	39.6	0.147	0.091	0.117	0.859	0.383	0.173
Western Europe	38.4	0.278	0.217	0.045	0.540	0.344	0.199
Southern Europe	39.7	0.085	0.048	0.011	0.031	0.079	0.151
Eastern Europe	38.7	0.348	0.064	0.009	0.024	0.084	0.182
Africa	36.8	0.164	0.050	0.776	0.273	0.054	0.128
South Asia	37.3	0.202	0.009	0.998	0.105	0.015	0.040
Southeast Asia	38.9	0.092	0.071	0.996	0.150	0.126	0.104
East Asia	40.5	0.155	0.030	0.998	0.016	0.060	0.086
West Asia/Middle East	38.1	0.136	0.016	0.788	0.062	0.029	0.110
Oceania and others	36.2	0.090	0.076	0.499	0.563	0.445	0.116

Source: Statistics Canada, 1981 and 2006 Census of Population.

5 Multivariate results

5.1 The effects of source-country gender roles on married immigrant women's paid labour activities

5.1.1 Labour force participation

Source-country female–male labour activity and female–male education are positively and significantly associated with immigrant wives' likelihood of participating in the labour force, defined as at least one week of employment in the previous year (Table 6). In Model 1, which includes only source-country variables, a 0.5-point increase in the source-country female–male labour activity ratio, which is close to the difference in the 2006 ratio between China (0.85), at the higher end, and India (0.40) and Pakistan (0.25), at the lower end, is associated with an 8.7-percentage-point increase in immigrant wives' labour force participation rate (i.e., one-half of the coefficient). A 0.5-point increase in the source-country female–male education ratio, which is close to the difference in the ratio between the Philippines (1.12) and Mali (0.62) in 2006, is associated with an increase of 4.8 percentage points in the labour force participation rate. These results change only slightly when individual characteristics are taken into account (Table 6, Model 2), suggesting that source-country gender roles operate independently of individuals' human capital and demographic characteristics. Indeed, a 0.5-point increase in the source-country female–male labour activity ratio is associated with a 7.2-percentage-point increase in immigrant wives' labour force participation rate, and a 0.5-point increase in the source-country female–male education ratio is associated with an increase of 5.1 percentage points in the labour force participation rate (Table 6, Model 2). These are large effects considering the average labour force participation rate in 2006 was 81.4% among married Canadian-born women and 69.1% among married recent-immigrant women (Table 3).

The interaction terms between length of stay and source-country gender role indicators are not statistically significant (Table 6, Model 3), suggesting the effects of source-country gender roles persist for many years. The interaction terms between Canadian-born husbands and source-country female–male labour activity are positive and significant, indicating that the effect of source-country female–male labour activity on immigrant wives' labour force participation is even stronger when their husbands are Canadian-born. However, the effect of source-country female–male labour activity is weaker when the husband is an immigrant from a different source country.

The effects of two other source-country characteristics—total fertility rate and GDP per capita—are generally small and change from positive, to zero or negative, when individual characteristics are taken into account (Table 6, Model 1 and Model 2). However, the effect of source-country official language is statistically significant and substantial. Even after controlling for individuals' mother tongue and self-reported ability to speak English or French, immigrant wives from source countries where English or French is an official language have, on average, a labour force participation rate that is 7.5 percentage points higher than that of immigrant wives from source countries where neither English nor French is an official language (Table 6, Model 2).

Table 6

Marginal effects of Probit models for labour force participation among married immigrant women

	Model 1		Model 2		Model 3	
	coefficient	standard error	coefficient	standard error	coefficient	standard error
Female–male labour activity	0.175 ***	0.015	0.144 ***	0.012	0.164 ***	0.026
Female–male secondary education	0.097 ***	0.015	0.103 ***	0.012	0.080 ***	0.021
Total fertility rate	0.012 ***	0.003	0.002	0.002	0.002	0.002
Log gross domestic product per capita	0.001	0.002	-0.019 ***	0.002	-0.019 ***	0.002
Official language is English/French	0.092 ***	0.005	0.075 ***	0.005	0.076 ***	0.005
Age	...	...	-0.008 ***	0.000	-0.008 ***	0.000
Age squared	...	...	-0.001 ***	0.000	-0.001 ***	0.000
Common-law	...	...	0.071 ***	0.004	0.070 ***	0.004
Visible minority	...	...	-0.030 ***	0.005	-0.030 ***	0.005
Husband is Canadian-born	...	...	-0.013 **	0.004	0.022	0.017
Husband from a different country	...	...	-0.011 ***	0.003	-0.004	0.013
Years since landing	...	...	0.006 ***	0.000	0.005 *	0.001
Cohort 1970 to 1974	...	...	0.097 ***	0.010	0.097 ***	0.010
Cohort 1975 to 1979	...	...	0.100 ***	0.009	0.101 ***	0.009
Cohort 1980 to 1984	...	...	0.089 ***	0.008	0.089 ***	0.008
Cohort 1985 to 1989	...	...	0.091 ***	0.008	0.092 ***	0.008
Cohort 1990 to 1994	...	...	0.076 ***	0.009	0.075 ***	0.009
Cohort 1995 to 1999	...	...	0.030 **	0.011	0.030 **	0.011
Graduate degree	...	...	0.056 ***	0.004	0.056 ***	0.004
Some postsecondary education	...	...	-0.025 ***	0.003	-0.025 ***	0.003
High school graduation	...	...	-0.105 ***	0.004	-0.105 ***	0.004
Less than high school	...	...	-0.175 ***	0.005	-0.174 ***	0.005
Husband—graduate degree	...	...	-0.033 ***	0.003	-0.033 ***	0.003
Husband—some postsecondary education	...	...	0.023 ***	0.003	0.023 ***	0.003
Husband—high school graduation	...	...	0.034 ***	0.003	0.034 ***	0.003
Husband—less than high school	...	...	0.042 ***	0.003	0.041 ***	0.003
Mother tongue not English/French, not speaking English/French	...	...	-0.077 ***	0.008	-0.076 ***	0.008
Mother tongue not English/French, speaking French	...	...	-0.020 **	0.007	-0.019 **	0.007
Mother tongue not English/French, speaking English	...	...	-0.006	0.004	-0.005	0.004
Mother tongue French	...	...	0.015 *	0.007	0.015 *	0.007
Number of children aged 0 to 5	...	...	-0.124 ***	0.002	-0.124 ***	0.002
Number of children aged 6 to 14	...	...	-0.046 ***	0.001	-0.046 ***	0.001
Number of children aged 15 to 17	...	...	0.001	0.002	0.001	0.002
Years since landing interacted with female–male labour activity	...	...	...	...	-0.001	0.001

See notes at end of table.

Table 6

Marginal effects of Probit models for labour force participation among married immigrant women (concluded)

	Model 1		Model 2		Model 3	
	coefficient	standard error	coefficient	standard error	coefficient	standard error
Years since landing interacted with female–male secondary education	...	...	...	...	0.002	0.001
Husband is Canadian-born interacted with female–male labour activity	...	...	...	...	0.051 **	0.020
Husband is Canadian-born interacted with female–male secondary education	...	...	...	...	-0.068 **	0.020
Husband from a different country interacted with female–male labour activity	...	...	...	...	-0.052 ***	0.012
Husband from a different country interacted with female–male secondary education	...	...	...	...	0.025 *	0.013

	Model 1	Model 2	Model 3
Census metropolitan areas and provinces fixed effects	Not included	Included	Included
Sample size	558,202	558,202	558,202
Pseudo R-squared	0.014	0.091	0.091

*significant at p<0.05; **significant at p<0.01; ***significant at p<0.001

Source: Statistics Canada, 1981, 1986, 1991, 1996, 2001, and 2006 Census of Population.

At the individual level, common-law status, years since landing, and education levels are positively correlated with immigrant wives' labour force participation, while older age, visible-minority status, presence of young children, husbands' higher education, and having a husband who is Canadian-born or from a different source country are negatively correlated with immigrant wives' labour force participation (Table 6, Model 2 and Model 3). A mother tongue other than English or French and not speaking English are also associated with lower labour force participation rates. Immigrant wives who arrived in the 1970s and 1980s tend to have higher labour force participation rates than those who arrived in the late 1990s and early 2000s.

5.1.2 Weeks worked

When "weeks of employment" is used as the outcome variable, source-country female–male labour activity and female–male education both have significant and positive effects (Table 7, Model 1). These effects diminish slightly when individual characteristics are taken into account (Table 7, Model 2). In Model 2, a 0.5-point increase in the source-country female–male labour activity ratio is associated with 4.0 more weeks worked in a year (i.e., one-half of the coefficient), and a 0.5-point increase in the source-country female–male education ratio is associated with 2.5 more weeks worked in a year.

Table 7

Ordinary least squares regression models for weeks worked among married immigrant women

	Model 1		Model 2		Model 3	
	coefficient	standard error	coefficient	standard error	coefficient	standard error
Intercept	13.99 ***	1.63	41.64 ***	1.43	42.04 ***	1.74
Female–male labour activity	9.30 ***	0.81	7.92 ***	0.59	8.04 ***	1.36
Female–male secondary education	4.88 ***	0.81	5.03 ***	0.57	4.62 ***	1.05
Total fertility rate	0.87 ***	0.15	0.15	0.11	0.14	0.11
Log gross domestic product per capita	0.35 *	0.15	-0.73 ***	0.11	-0.75 ***	0.11
Official language is English/French	4.41 ***	0.30	3.52 **	0.27	3.55 ***	0.26
Age	...	...	-0.32 ***	0.01	-0.32 ***	0.01
Age squared	...	...	-0.03 ***	0.00	-0.03 ***	0.00
Common-law	...	...	2.74 ***	0.17	2.74 ***	0.17
Visible minority	...	...	-1.26 ***	0.26	-1.27 ***	0.27
Husband is Canadian-born	...	...	-1.16 ***	0.19	1.40 **	0.85
Husband from a different country	...	...	-0.50 **	0.15	1.13 *	0.72
Years since landing	...	...	0.42 ***	0.02	0.37 ***	0.06
Cohort 1970 to 1974	...	...	5.27 ***	0.66	5.30 ***	0.66
Cohort 1975 to 1979	...	...	5.73 ***	0.62	5.74 ***	0.62
Cohort 1980 to 1984	...	...	5.04 ***	0.54	5.03 ***	0.55
Cohort 1985 to 1989	...	...	5.65 ***	0.52	5.63 ***	0.52
Cohort 1990 to 1994	...	...	5.18 ***	0.55	5.15 ***	0.55
Cohort 1995 to 1999	...	...	2.42 ***	0.66	2.41 ***	0.65
Graduate degree	...	...	2.54 ***	0.19	2.54 ***	0.18
Some postsecondary education	...	...	-1.20 ***	0.15	-1.20 ***	0.15
High school graduation	...	...	-4.34 ***	0.18	-4.33 ***	0.17
Less than high school	...	...	-7.36 ***	0.23	-7.34 ***	0.22
Husband–graduate degree	...	...	-1.68 ***	0.16	-1.68 ***	0.15
Husband–some postsecondary education	...	...	1.14 ***	0.13	1.13 ***	0.13
Husband–high school graduation	...	...	1.57 ***	0.15	1.57 ***	0.15
Husband–less than high school	...	...	1.98 ***	0.20	1.98 ***	0.20
Mother tongue not English/French, not speaking English/French	...	...	-4.57 ***	0.39	-4.53 ***	0.39
Mother tongue not English/French, speaking French	...	...	-1.86 ***	0.33	-1.82 ***	0.33
Mother tongue not English/French, speaking English	...	...	-0.27	0.22	-0.24	0.22

See notes at end of table.

Table 7

Ordinary least squares regression models for weeks worked among married immigrant women (concluded)

	Model 1		Model 2		Model 3	
	coefficient	standard error	coefficient	standard error	coefficient	standard error
Mother tongue French	...	...	0.55	0.38	0.56	0.36
Number of children aged 0 to 5	...	...	-6.79 ***	0.10	-6.79 ***	0.10
Number of children aged 6 to 14	...	...	-2.38 ***	0.06	-2.38 ***	0.06
Number of children aged 15 to 17	...	...	-0.15	0.08	-0.14	0.08
Years since landing interacted with female–male labour activity	...	...	...	...	0.01	0.07
Years since landing interacted with female–male secondary education	...	...	...	...	0.05	0.05
Husband is Canadian-born interacted with female–male labour activity	...	...	...	...	2.41 *	1.00
Husband is Canadian-born interacted with female–male secondary education	...	...	...	...	-4.13 ***	0.89
Husband from a different country interacted with female–male labour activity	...	...	...	...	-2.58 ***	0.64
Husband from a different country interacted with female–male secondary education	...	...	...	...	-0.16	0.66
	Model 1		Model 2		Model 3	
Census metropolitan areas and provinces fixed effects	Not included		Included		Included	
Sample size	558,202		558,202		558,202	
Adjusted R-squared	0.017		0.127		0.127	

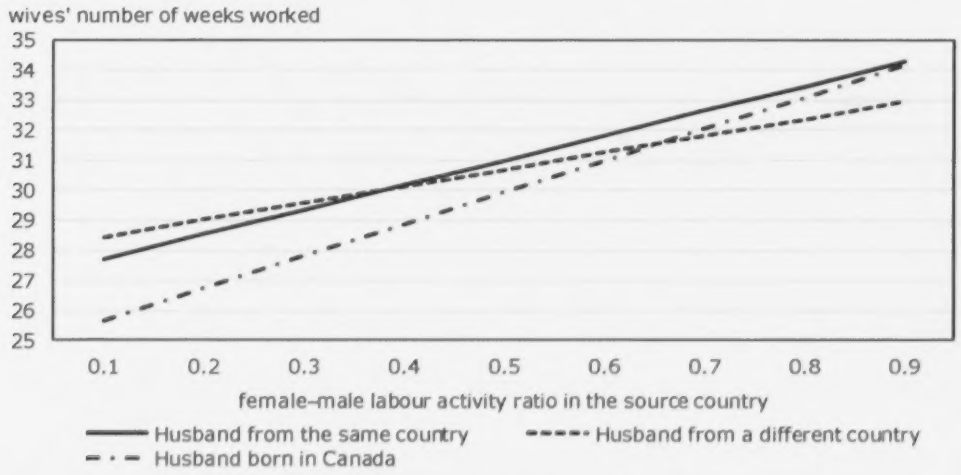
*significant at p<0.05; **significant at p<0.01; ***significant at p<0.001

Source: Statistics Canada, 1981, 1986, 1991, 1996, 2001, and 2006 Census of Population.

The effects of source-country female–male labour activity and female–male education do not decrease with length of stay in Canada (Table 7, Model 3). The effect of source-country female–male labour activity again varies with the husband's country of birth. It is strongest when the husband is Canadian-born and weakest when the husband is from a source country different from the wife's. As shown in Chart 1 and Table 7 (Model 3), when the husband is an immigrant from the same source country as the wife's, a 0.5-point increase in the source-country female–male labour activity ratio is associated with 4.1 more weeks worked in Canada; the outcome is 5.3 weeks when the husband is Canadian-born and 2.8 weeks when the husband is an immigrant from a source country different from the wife's. The effect of source-country female–male education on immigrant wives' weeks worked is reduced when the husband is Canadian-born. As shown in Chart 2, when the husband is an immigrant either from the same source country as the wife's or from a different source country, a 0.5-point increase in the source-country female–male education ratio is associated with 2.4 more weeks worked. This effect is very small when the husband is Canadian-born.

Chart 1

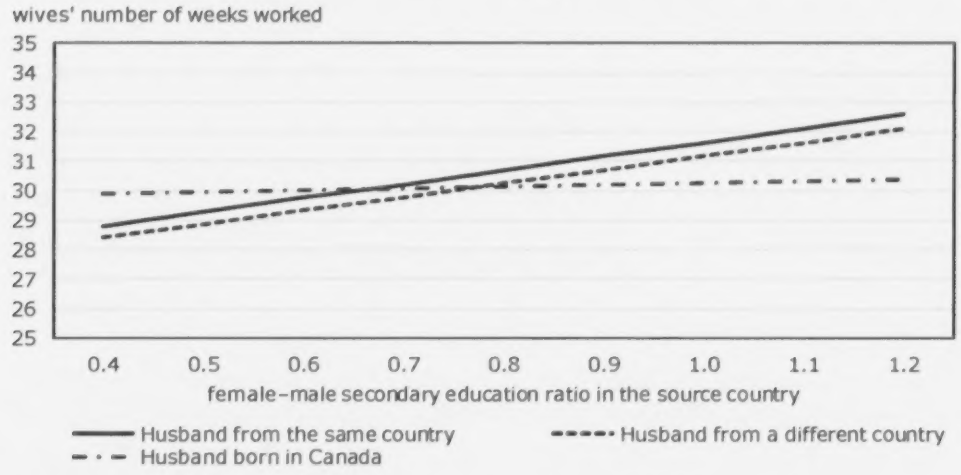
The effect of source-country female–male labour activity ratio on wives' weeks worked, by husbands' immigration status



Source: Statistics Canada, 1981, 1986, 1991, 1996, 2001, and 2006 Census of Population.

Chart 2

The effect of source-country female–male secondary education ratio on wives' weeks worked, by husbands' immigration status



Source: Statistics Canada, 1981, 1986, 1991, 1996, 2001, and 2006 Census of Population.

5.1.3 The share in couples' total labour supply

Source-country female–male labour activity and female–male education are significantly associated with immigrant wives' share in couples' total weeks worked (Table 8, Model 1), although these correlations decrease slightly when individual-level characteristics are taken into account (Table 8, Model 2). A 0.5-point increase in the source-country female–male labour activity ratio is associated with a 0.042-point increase in immigrant wives' share of couples' combined weeks of employment (i.e., one-half of the coefficient); this is about 10% of immigrant wives' average share of couples' combined weeks of work. Source-country female–male education ratios are more weakly correlated with contributions to total employment, with a 0.5-

point increase in the ratio associated with a 0.021-point increase in immigrant wives' share of couples' total employment.

Table 8

Ordinary least squares regression models for married immigrant women's share in couples' total weeks worked

	Model 1		Model 2		Model 3	
	coefficient	standard error	coefficient	standard error	coefficient	standard error
Intercept	0.293 ***	0.015	0.427 ***	0.012	0.408 ***	0.015
Female–male labour activity	0.097 ***	0.008	0.084 ***	0.006	0.132 ***	0.012
Female–male secondary education	0.046 ***	0.007	0.042 ***	0.005	0.029 **	0.009
Total fertility rate	0.005 **	0.001	0.000	0.001	0.001	0.001
Log gross domestic product per capita	-0.004 **	0.001	-0.008 ***	0.001	-0.008 ***	0.001
Official language is English/French	0.029 ***	0.003	0.021 ***	0.002	0.023 ***	0.002
Age	...	...	-0.001 ***	0.000	-0.001 ***	0.000
Age squared	...	...	0.000 ***	0.000	0.000 ***	0.000
Common-law	...	...	0.041 ***	0.002	0.041 ***	0.002
Visible minority	...	...	0.008	0.002	0.007	0.002
Husband is Canadian-born	...	...	-0.015 ***	0.002	0.001	0.009
Husband from a different country	...	...	-0.006 ***	0.001	0.002	0.006
Years since landing	...	...	0.003 ***	0.000	0.004 ***	0.000
Cohort 1970 to 1974	...	...	0.031 ***	0.005	0.032 ***	0.005
Cohort 1975 to 1979	...	...	0.032 ***	0.005	0.033 ***	0.005
Cohort 1980 to 1984	...	...	0.029 ***	0.004	0.032 ***	0.004
Cohort 1985 to 1989	...	...	0.040 ***	0.004	0.042 ***	0.004
Cohort 1990 to 1994	...	...	0.037 ***	0.004	0.039 ***	0.004
Cohort 1995 to 1999	...	...	0.018 ***	0.005	0.018 *	0.005
Graduate degree	...	...	0.025 ***	0.002	0.025 ***	0.002
Some postsecondary education	...	...	-0.011 ***	0.002	-0.011 ***	0.002
High school graduation	...	...	-0.044 ***	0.002	-0.043 ***	0.002
Less than high school	...	...	-0.075 ***	0.002	-0.075 ***	0.002
Husband—graduate degree	...	...	-0.022 ***	0.002	-0.022 ***	0.002
Husband—some postsecondary education	...	...	0.012 ***	0.001	0.012 ***	0.001
Husband—high school graduation	...	...	0.026 ***	0.001	0.026 ***	0.001
Husband—less than high school	...	...	0.049 ***	0.002	0.049 ***	0.002
Mother tongue not English/French, not speaking English/French	...	...	-0.031 ***	0.004	-0.030 ***	0.004
Mother tongue not English/French, speaking French	...	...	-0.009 *	0.004	-0.008 *	0.004

See notes at end of table.

Table 8

Ordinary least squares regression models for married immigrant women's share in couples' total weeks worked (concluded)

	Model 1		Model 2		Model 3	
	coefficient	standard error	coefficient	standard error	coefficient	standard error
Mother tongue not English/French, speaking English	...	...	-0.004 *	0.002	-0.003	0.002
Mother tongue French	...	...	0.016 ***	0.004	0.016 ***	0.004
Number of children aged 0 to 5	...	...	-0.075 ***	0.001	-0.074 ***	0.001
Number of children aged 6 to 14	...	...	-0.025 ***	0.001	-0.024 ***	0.001
Number of children aged 15 to 17	...	...	-0.004 ***	0.001	-0.003 ***	0.001
Years since landing interacted with female–male labour activity	...	...	...	...	-0.003 ***	0.001
Years since landing interacted with female–male secondary education	...	...	...	...	0.001	0.000
Husband is Canadian-born interacted with female–male labour activity	...	...	...	...	0.002	0.009
Husband is Canadian-born interacted with female–male secondary education	...	...	...	...	-0.017	0.010
Husband from a different country interacted with female–male labour activity	...	...	...	...	-0.033 ***	0.007
Husband from a different country interacted with female–male secondary education	...	...	...	...	0.012	0.006

	Model 1	Model 2	Model 3
Census metropolitan areas and provinces fixed effects	Not included	Included	Included
Sample size	527,886	527,886	527,886
Adjusted R-squared	0.009	0.079	0.079

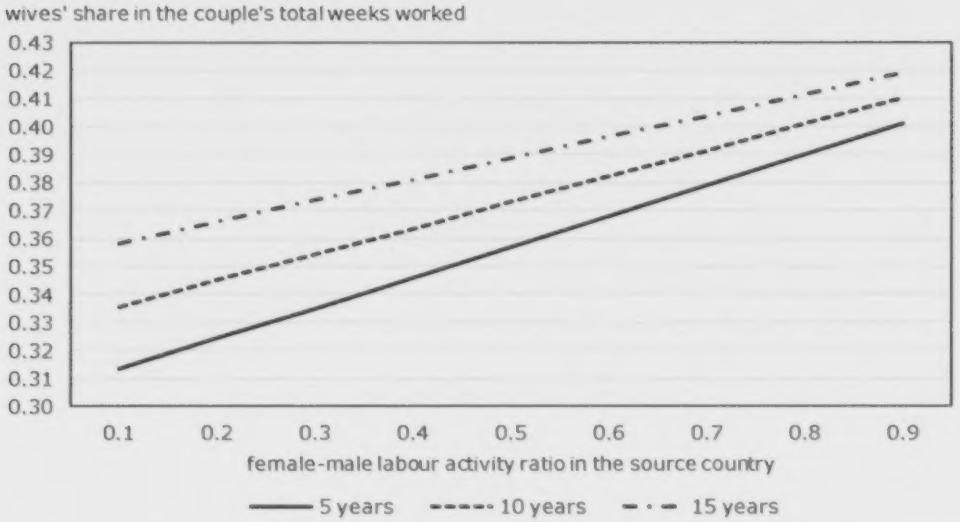
*significant at p<0.05; **significant at p<0.01; ***significant at p<0.001

Source: Statistics Canada, 1981, 1986, 1991, 1996, 2001, and 2006 Census of Population.

The importance of source-country female–male labour activity to immigrant wives' contribution to couples' combined employment tends to diminish over time (Table 8, Model 3). As shown in Chart 3, a 0.5-point increase in the source-country female–male labour activity ratio is associated with a 0.046-point increase in wives' shares of couples' combined employment among immigrant wives who have been in Canada for 5 years, and with a 0.038-point increase among immigrant wives who have been in Canada for 15 years.

Chart 3

The effect of source-country female–male labor activity on married immigrant women's share in couples' total weeks worked, by years in Canada



Source: Statistics Canada, 1981, 1986, 1991, 1996, 2001, and 2006 Census of Population.

The effect of source-country female–male labour activity on immigrant wives' labour activity in Canada decreases significantly when their husbands are immigrants from a different source country (Table 8, Model 3). The effect of source-country female–male education does not vary with husbands' immigrant status or length of stay in the host-country. The effects of two other source-country characteristics, GDP per capita and official language, are statistically significant.

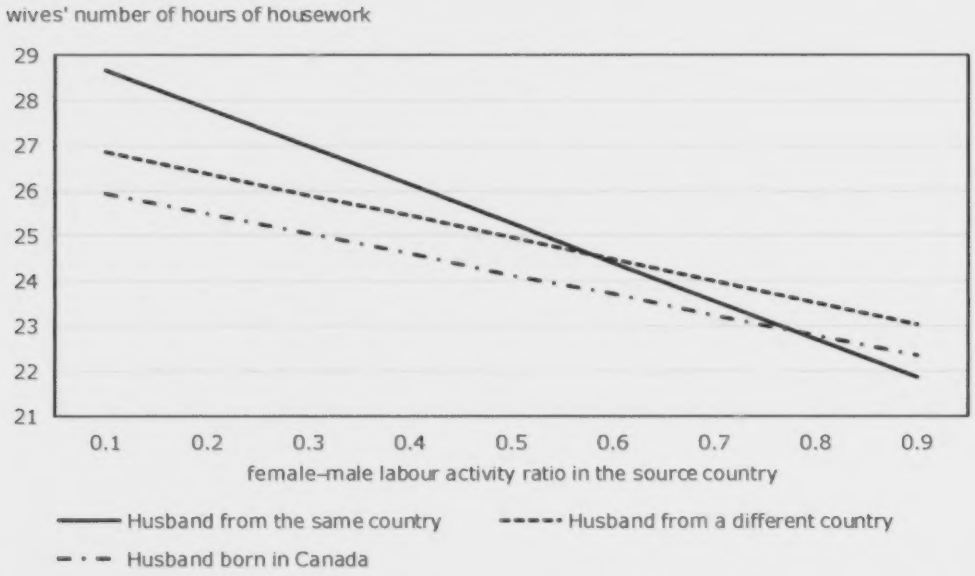
5.2 The effects of source-country gender roles on married immigrant women's housework

5.2.1 Hours of housework

The effect of source-country female–male labour activity on immigrant wives' total hours of housework is large and significant (Table 9, Model 1), and the effect changes little when individual characteristics are taken into account (Table 9, Model 2). When individual-level characteristics are controlled for, as in Model 2, a 0.5-point increase in the source-country female–male labour activity is associated with a decrease of 3.8 hours per week in immigrant wives' housework. The effect of source-country female–male labour activity is about one-half as strong when a married immigrant woman has a Canadian-born husband than when her husband is from the same source country (Table 9 (Model 3) and Chart 4). The effect also tends to weaken slowly with length of stay in Canada. A 0.5-point increase in source-country female–male labour activity is associated with 5.8 hours less housework upon arrival, with this diminishing to 5.2 hours after 5 years, 4.1 hours after 15 years, and 2.5 hours after 30 years in Canada.

Chart 4

The effect of source-country female–male labour activity ratio on wives' hours of housework, by husbands' immigration status



Source: Statistics Canada, 1981, 1986, 1991, 1996, 2001, and 2006 Census of Population.

The effect of female–male education on immigrant wives' hours of housework is negative and statistically significant (Table 9, Model 1 and Model 2), suggesting that female representation in secondary school in the country of origin is correlated with fewer hours of housework done by immigrant wives in Canada. Among the other three source-country attributes, only the effect of GDP per capita remains significant after controlling for individual-level characteristics. At the individual level, age, the presence of children, and a mother tongue other than English or French and not speaking either language are associated with more hours of housework among immigrant wives. Common-law status, years since landing, having a Canadian-born husband, and higher levels of education are associated with fewer hours of housework.

5.2.2 The share in couples' total hours of housework

Source-country female–male labour activity and female–male education are also significantly associated with immigrant wives' share in couples' total hours of housework. The higher the source-country female–male labour activity and female–male education, the lower immigrant wives' shares in family housework (Table 10, Model 1). These effects change little when individual-level characteristics are controlled (Table 10, Model 2). A 0.5-point increase in the source-country female–male labour activity ratio is associated with a 0.033-point decrease in immigrant wives' share in family housework, while a 0.5-point increase in the source-country female–male education ratio is associated with a 0.022-point decrease.

The effect of source-country female–male labour activity on the share of couples' total hours of housework declines the longer that immigrant wives' have resided in Canada (Table 10, Model 3), but the magnitude of the decline is small. The effect of source-country female–male labour activity is diminished when the husband is born in Canada or comes from a country different from the wife's (Table 10, Model 3). The effect of source-country female–male education does not vary with husbands' immigration status. The effect also does not change with the length of stay in Canada.

Table 9

Ordinary least squares regression models for married immigrant women's hours of housework as the outcome

	Model 1		Model 2		Model 3	
	coefficient	standard error	coefficient	standard error	coefficient	standard error
Intercept	28.34 ***	0.94	12.71 ***	0.93	13.52 ***	1.14
Female–male labour activity	-8.08 ***	0.51	-7.54 ***	0.36	-11.55 ***	0.63
Female–male secondary education	-1.30 **	0.49	-1.44 ***	0.41	0.69	0.79
Total fertility rate	0.00	0.08	0.10	0.06	0.03	0.06
Log gross domestic product per capita	0.27 *	0.08	0.55 ***	0.06	0.53 ***	0.06
Official language is English/French	-0.32	0.17	-0.23	0.16	-0.35 *	0.15
Age	...	...	0.22 ***	0.01	0.22 ***	0.01
Age squared	...	...	0.00 *	0.00	0.00 *	0.00
Common-law	...	...	-2.37 ***	0.16	-2.34 ***	0.16
Visible minority	...	...	-0.66	0.15	-0.62	0.14
Husband is Canadian-born	...	...	-0.56 ***	0.14	-4.06 ***	0.88
Husband from a different country	...	...	0.08	0.12	-1.17	0.65
Years since landing	...	...	-0.05 **	0.02	-0.07	0.04
Cohort 1970 to 1974	...	...	-1.96 **	0.57	-1.48 **	0.55
Cohort 1975 to 1979	...	...	-1.67 **	0.48	-1.39 **	0.45
Cohort 1980 to 1984	...	...	-1.41 ***	0.41	-1.44 **	0.39
Cohort 1985 to 1989	...	...	-1.94 ***	0.35	-1.94 ***	0.32
Cohort 1990 to 1994	...	...	-1.63 ***	0.29	-1.60 ***	0.26
Cohort 1995 to 1999	...	...	-0.87 **	0.25	-0.82 ***	0.22
Graduate degree	...	...	-1.77 ***	0.16	-1.78 ***	0.16
Some postsecondary education	...	...	1.11 ***	0.12	1.12 ***	0.12
High school graduation	...	...	1.93 ***	0.14	1.92 ***	0.14
Less than high school	...	...	2.27 ***	0.18	2.25 ***	0.18
Husband—graduate degree	...	...	0.54 ***	0.15	0.55 ***	0.14
Husband—some postsecondary education	...	...	0.22	0.13	0.22	0.12
Husband—high school graduation	...	...	-0.37 **	0.14	-0.36 **	0.14
Husband—less than high school	...	...	-0.98 ***	0.18	-0.98 ***	0.18
Mother tongue not English/French, not speaking English/French	...	...	1.09 ***	0.23	1.08 ***	0.23
Mother tongue not English/French, speaking French	...	...	-0.43	0.30	-0.56	0.30
Mother tongue not English/French, speaking English	...	...	0.26	0.14	0.19	0.14
Mother tongue French	...	...	-3.33 ***	0.28	-3.32 ***	0.28
Number of children aged 0 to 5	...	...	6.32 ***	0.11	6.30 ***	0.11
Number of children aged 6 to 14	...	...	3.24 ***	0.06	3.23 ***	0.06
Number of children aged 15 to 17	...	...	2.46 ***	0.09	2.44 ***	0.09

See notes at end of table.

Table 9

Ordinary least squares regression models for married immigrant women's hours of housework as the outcome (concluded)

	Model 1		Model 2		Model 3	
	coefficient	standard error	coefficient	standard error	coefficient	standard error
Years since landing interacted with female–male labour activity	...	...	...	...	0.22 ***	0.03
Years since landing interacted with female– male secondary education	...	...	...	...	-0.12 **	0.04
Husband is Canadian-born interacted with female– male labour activity	...	...	...	...	4.06 ***	0.77
Husband is Canadian-born interacted with female– male secondary education	...	...	...	...	1.00	0.85
Husband from a different country interacted with female–male labour activity	...	...	...	...	3.75 ***	0.56
Husband from a different country interacted with female–male secondary education	...	...	...	...	-1.13	0.64

	Model 1	Model 2	Model 3
Census metropolitan areas and provinces fixed effects	Not included	Included	Included
Sample size	335,839	335,839	335,839
Adjusted R-squared	0.008	0.067	0.068

*significant at p<0.05; **significant at p<0.01; ***significant at p<0.001

Source: Statistics Canada, 1996, 2001, and 2006 Census of Population.

Table 10

Ordinary least squares regression models for married immigrant women's share in couples' total hours of housework

	Model 1		Model 2		Model 3	
	coefficient	standard error	coefficient	standard error	coefficient	standard error
Intercept	0.684 ***	0.008	0.592 ***	0.010	0.611 ***	0.012
Female–male labour activity	-0.069 ***	0.005	-0.067 ***	0.004	-0.109 ***	0.007
Female–male secondary education	-0.048 ***	0.006	-0.044 ***	0.005	-0.033 **	0.011
Total fertility rate	0.001	0.001	0.003 ***	0.001	0.002 **	0.001
Log gross domestic product per capita	0.007 ***	0.001	0.009 ***	0.001	0.009 ***	0.001
Official language is English/French	-0.024 ***	0.002	-0.013 ***	0.002	-0.015 ***	0.002
Age	...	...	0.001 ***	0.000	0.001 ***	0.000
Age squared	...	...	0.000	0.000	0.000	0.000
Common-law	...	...	-0.020 ***	0.002	-0.020 ***	0.002
Visible minority	...	...	-0.014 ***	0.002	-0.014 ***	0.002
Husband is Canadian-born	...	...	-0.005 **	0.002	-0.040 ***	0.011
Husband from a different country	...	...	0.008 ***	0.002	-0.011	0.008
Years since landing	...	...	-0.002 ***	0.000	-0.003 ***	0.000
Cohort 1970 to 1974	...	...	0.017 **	0.006	0.023 ***	0.006
Cohort 1975 to 1979	...	...	0.021 ***	0.005	0.025 ***	0.005
Cohort 1980 to 1984	...	...	0.018 ***	0.004	0.017 ***	0.004
Cohort 1985 to 1989	...	...	0.007	0.004	0.007	0.004
Cohort 1990 to 1994	...	...	0.001	0.003	0.001	0.003
Cohort 1995 to 1999	...	...	0.001	0.003	0.002	0.002
Graduate degree	...	...	-0.024 ***	0.002	-0.024 ***	0.002
Some postsecondary education	...	...	0.013 ***	0.001	0.013 ***	0.001
High school graduation	...	...	0.024 ***	0.002	0.024 ***	0.002
Less than high school	...	...	0.030 ***	0.002	0.030 ***	0.002
Husband—graduate degree	...	...	0.019 ***	0.002	0.019 ***	0.001
Husband—some postsecondary education	...	...	-0.010 ***	0.001	-0.010 ***	0.001
Husband—high school graduation	...	...	-0.009 ***	0.002	-0.008 ***	0.002
Husband—less than high school	...	...	-0.009 **	0.002	-0.009 ***	0.002
Mother tongue not English/French, not speaking English/French	...	...	0.033 ***	0.003	0.033 ***	0.003
Mother tongue not English/ French, speaking French	...	...	0.026 ***	0.003	0.025 ***	0.003
Mother tongue not English/ French, speaking English	...	...	0.011 ***	0.002	0.010 ***	0.002

See notes at end of table.

Table 10

Ordinary least squares regression models for married immigrant women's share in couples' total hours of housework (concluded)

	Model 1		Model 2		Model 3	
	coefficient	standard error	coefficient	standard error	coefficient	standard error
Mother tongue French	...	...	-0.004	0.003	-0.004	0.003
Number of children aged 0 to 5	...	...	0.029 ***	0.001	0.029 ***	0.001
Number of children aged 6 to 14	...	...	0.015 ***	0.001	0.015 ***	0.001
Number of children aged 15 to 17	...	...	0.020 ***	0.001	0.020 ***	0.001
Years since landing interacted with female–male labour activity	...	...	...	...	0.003 ***	0.000
Years since landing interacted with female– male secondary education	...	...	...	...	-0.001	0.000
Husband is Canadian-born interacted with female– male labour activity	...	...	...	...	0.027 **	0.009
Husband is Canadian-born interacted with female– male secondary education	...	...	...	...	0.020	0.011
Husband from a different country interacted with female–male labour activity	...	...	...	...	0.023 ***	0.007
Husband from a different country interacted with female–male secondary education	...	...	...	...	0.005	0.008
	Model 1		Model 2		Model 3	
Census metropolitan areas and provinces fixed effects	Not included		Included		Included	
Sample size	335,839		335,839		335,839	
Adjusted R-squared	0.008		0.028		0.029	

*significant at p<0.05; **significant at p<0.01; ***significant at p<0.001

Source: Statistics Canada, 1996, 2001, and 2006 Census of Population.

5.3 The effects of source-country gender roles on married immigrant men's paid and unpaid labour

Thus far, the analysis shows that source-country gender roles are correlated with the share of paid and unpaid labour that immigrant wives assume regardless of their husbands' immigrant status. However, the question of whether source-country gender roles also affect immigrant men's paid and unpaid labour remains. Since cross-country variations in the level of traditional gender roles manifest primarily in the relative position of women in the labour market and the family, one might expect that the effect of source-country gender roles on immigrant men would be much weaker.

When immigrant husbands' share in couples' total weeks worked or total hours of housework are used as the outcomes, the results are almost the mirror image of the results for immigrant wives (tables are available upon request). Source-country female–male labour activity and female–male education are both negatively and significantly associated with immigrant husbands' share in couples' total weeks worked, and are positively associated with immigrant

husbands' share in couples' total hours of housework. These results also tend to diminish with length of stay in Canada.

Since married women's share in families' paid and unpaid labour is jointly determined by wives' and husbands' paid and unpaid labour, it is possible that the observed effect of source-country gender roles on immigrant husbands' share of paid and unpaid labour is driven primarily by the effect on the wives' own paid and unpaid labour. To confirm this possibility, immigrant husbands' own weeks worked and hours of housework are used as outcome variables. The results show that the effects of source-country gender roles on immigrant husbands' own paid and unpaid labour tend to be small, although statistically significant in most cases, and decrease with the length of stay in Canada (tables available upon request). For instance, a 0.5-point increase in the source-country female–male labour activity is associated with 1.4 fewer weeks worked for immigrant husbands upon arrival in Canada. This effect is reduced to 0.7 weeks after 5 years and is close to 0 after 10 years. In comparison, a 0.5-point increase in the source-country female–male labour activity is associated with 4.0 more weeks worked among immigrant women, and this effect remains constant with length of stay in the host country.

Overall, the correlation between source-country characteristics and immigrant husbands' labour supply decisions weakens far more over time than does the correlation between source-country characteristics and married immigrant women's labour supply decisions. The same holds for housework. A 0.5-point increase in the source-country female–male labour activity is associated with only 0.4 more hours of housework per week for immigrant husbands upon arrival, with this decreasing to 0.3 additional hours after 5 years, to 0.1 additional hours after 10 years, and to close to 0 additional hours after 15 years. As earlier results showed, the correlation between source-country female–male labour activity and married immigrant women's housework also decreases over time, but remains substantial even after 30 years in Canada.

6 Conclusions

Women's paid and unpaid labour activity across countries is influenced by various national-level factors. While cross-country studies provide insight into how different national contexts are associated with women's labour, information regarding the persistence of traditional gender roles in the absence of institutional and policy constraints is lacking. This study addresses this issue by examining the relationship between indicators of source countries' typical gender roles and immigrant couples' labour activities within a host country. Canadian immigrants come from source countries that differ considerably in terms of gender roles, as measured by the ratios of female–male labour activity and female–male education. This provides an opportunity to assess whether cultural norms continue to influence work activities following settlement in a new social, cultural, and institutional milieu.

Source-country female–male labour activity and female–male education are both positively associated with married immigrant women's labour supply and negatively associated with housework. Married immigrant women from the source regions with the lowest female–male labour activity ratio rank the lowest in terms of weeks worked in Canada. Multivariate models that take into account national- and individual-level characteristics suggest that source-country female–male labour activity is associated with couples' employment activities in Canada, with this manifested primarily through the outcomes of married immigrant women. This is expected since attitudes and beliefs associated with traditional gender roles are related primarily to the relative positions of women in the labour market and in the family.

The relationship between source-country female–male labour activity and immigrant women's shares in family paid and unpaid labour tends to decrease with length of stay in Canada, although the magnitude of this decline is small (particularly with regard to housework).

Furthermore, the decrease occurs mainly because the correlation with immigrant husbands' labour supply fades over time. The female–male labour activity effect on housework decreases with years in Canada among both wives and husbands. However, the initial result for husbands is small and diminishes over the 15 years following landing. In comparison, the relationship between female–male labour activity and wives' housework remains strong even 30 years following landing; this suggests that the influence of source-country gender roles on women persists.

In addition, the relationship between source-country female–male labour activity and married immigrant women's paid and unpaid labour is reduced, but does not disappear, when immigrant women have immigrant husbands who are not from the same country as themselves. That is, the effect of source-country female–male labour activity is enhanced when married immigrant women and their husbands share the same immigration background, but the effect remains significant even when married immigrant women and their husbands have different immigration backgrounds.

The relationship between source-country female–male education and women's labour supply is generally weaker than the relationship between source-country female–male labour activity and women's labour supply. However, the female–male education ratio does have a significant and negative relationship with wives' share in couples' total hours of housework. This indicates that immigrant women who arrive from source countries with higher ratios of female–male secondary education experience greater equity with their husbands with respect to their share in the hours of housework performed.

Overall, cultural factors related to gender norms in immigrant women's source countries appear to have an ongoing influence on immigrant women's paid and unpaid work in Canada. This suggests that gender roles function somewhat independently of the institutional contexts in which they were formed, and continue to influence individual behavior even after individuals are removed from those institutional contexts. Furthermore, the results reported above suggest that the socioeconomic integration of immigrants is related not only to individual-level human capital and demographic characteristics that are central to immigrant selection criteria, but also to the socioeconomic attributes of the source countries from which immigrants originate.

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